

CLAIMS

1 1. A metal-polishing liquid material comprising an
2 oxidized-metal etchant, a protective film-forming agent, and a dissolution
3 promoter for the protective film-forming agent.

1 2. The metal-polishing liquid material according to claim 1,
2 further comprising at least one of an oxidizing agent and water.

1 3. The metal-polishing liquid material according to claim 1,
2 comprising the ingredient group consisting of the oxidizing agent, the
3 oxidized-metal etchant, the protective film-forming agent and the
4 dissolution promoter in a divided state into two constituent elements not
5 mixed.

4. The metal-polishing liquid material according to claim 1 or 2,
wherein the dissolution promoter is a surfactant.

1 5. The metal-polishing liquid material according to claim 4,
2 wherein the surfactant is at least one of esters, ethers, polysaccharides,
3 salts of amino acids, polycarboxylic acids, salts of polycarboxylic acids,
4 vinyl polymers, sulfonic acids, sulfonates, and amides.

1 6. ~~The metal-polishing liquid material according to claim 1 or 2,~~
2 ~~wherein the dissolution promoter is a solvent in which the solubility of~~
3 ~~the protective film-forming agent is at least 25 g/liter.~~

1 7. ~~The metal-polishing liquid material according to claim 6,~~
2 ~~wherein the solvent is a good solvent for the protective film-forming~~
3 ~~agent.~~

1 8. ~~The metal-polishing liquid material according to claim 6,~~
2 ~~wherein the solvent is at least one of alcohols, ethers and ketones.~~

1 9. ~~The metal-polishing liquid material according to claim 6,~~
2 ~~wherein the amount of the solvent is smaller than 50 g relative to 100 g of~~
3 ~~a total amount of the material.~~

1 10. ~~The metal-polishing liquid material according to claim 1 or 2,~~
2 ~~wherein at least a part of the protective film-forming agent is solid having~~
3 ~~a mean particle size of at most 100 μ m.~~

1 11. ~~The metal-polishing liquid material according to claim 1 or 2,~~
2 ~~further comprising abrasive grains.~~

1 12. ~~A metal-polishing liquid which comprises an oxidizing agent,~~
2 ~~an oxidized-metal etchant, a protective film-forming agent, a dissolution~~
3 ~~promoter for the protective film-forming agent, and water.~~

1 13. The metal-polishing liquid according to claim 12, wherein the
2 dissolution promoter is a surfactant.

1 14. The metal-polishing liquid according to claim 12, wherein the
2 dissolution promoter is a solvent in which the solubility of the protective
3 film-forming agent is at least 25 g/liter.

1 15. The metal-polishing liquid according to claim 12, wherein at
2 least a part of the protective film-forming agent is solid, having a mean
3 particle size of at most 100 μm .

1 16. The metal-polishing liquid according to claim 12, further
2 comprising abrasive grains.

1 17. A method for producing a metal-polishing liquid, comprising
2 a step of diluting the metal-polishing liquid material of claim 1 or 2 with a
3 diluent.

1 18. A method for producing a metal-polishing liquid of claim 12,
2 comprising a step of diluting a metal-polishing liquid material comprising
3 at least one ingredient of an ingredient group consisting of an oxidizing
4 agent, an oxidized-metal etchant, a protective film-forming agent and a
5 dissolution promoter for the protective film-forming agent, with an
6 aqueous solution for dilution of at least one ingredient of the ingredient
7 group.

1 19. A method for producing a metal-polishing liquid which
2 comprises a step of mixing the following:

3 a first constituent element that contains at least one ingredient of
4 an ingredient group consisting of an oxidizing agent, an oxidized-metal
5 etchant, a protective film-forming agent and a dissolution promoter for
6 the protective film-forming agent,

7 a second constituent element that contains at least one of the other
8 ingredients of the ingredient group, and

9 a diluent,

10 in any desired order.

1 20. The method for producing a metal-polishing liquid according
2 to claim 17 or 19, wherein the diluent is water or an aqueous diluent
3 solution.

1 21. The method for producing a metal-polishing liquid according
2 to claim 19, wherein the first constituent element comprises an oxidizing
3 agent, and the second constituent element comprises an oxidized-metal
4 etchant, a protective film-forming agent and a dissolution promoter.

1 22. The method for producing a metal-polishing liquid according
2 to claim 19, wherein the first constituent element further comprises the
3 protective film-forming agent and the dissolution promoter.

1 23. The method for producing a metal-polishing liquid as

2 claimed in
3 the oxidiz
4 40°C.

1 24.
2 claimed in
3 agent is s
4 dissolved

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B

- 9 the protective film-forming agent,
10 *B* a second constituent element that contains at least one of the other
11 ingredients of the ingredient group, and
12 a diluent,
13 in any desired order.

*add
all*

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